

Purchase Order Receipt Listing

Thursday, November 10, 2016 4:36:10 PM

Page 1 of 1

All amounts are calculated in domestic currency.

All Vendors	PO ID PO34165	All Receipt Dates	All Line Item Types
All Item ID/GL/WOs	All Rec. Employees	All Currencies	
Grouped by Vendor ID			

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorIDVendor Name											
PO34165	1		VU-TW-M001	TW Metals							
			M6061T6T0.3125W.0 f 58		11/10/2016	11/10/2016	48.0000		0.0000	0	\$0.00
USD	No		ALUM TUBE.3125 f x .058w m136101		48.0000	PLOU01			0.0000	0	
	2		M6061T6T0.375W.05 f 8		11/10/2016	11/10/2016	48.0000		0.0000	0	\$0.00
	No		6061-T6 RD Tube f .375 x.058W m136101		48.0000	PLOU01			0.0000	0	
	3		M6061T6TS1.000W. f 120		11/10/2016	11/10/2016	21.0830		0.0000	0	\$0.00
	No		6061T6 SQ TUBE f 1.00 x 1.00 X .120w m136101		20.0000	PLOU01			0.0000	0	
	4		71401-45		11/10/2016	11/10/2016	1.0000		0.0000	0	\$0.00
	No		procurement quality clauses m136101		1.0000	PLOU01			0.0000	0	
Total Received Quantity:											118.0830
Total Qty to Inspect (PO U/M):											0.0000
Total Reject Quantity:											0.0000
Total Receipt Value:											\$0.00
Total Balance Due Quantity:											0.0000

Total Received Quantity:
Total Qty to Inspect (PO U/M):
Total Reject Quantity:
Total Receipt Value:
Total Balance Due Quantity:



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80816862 FROM: CHIC PAGE 1

CUST NUMBER: 1203820 NET WGT:
SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA

13.477 REQ.DATE: 11/10/16 CONFIRMED
SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
ONTARIO CANADA

CN K6A 1K7

CN K6A 1K7

SALESPERSON: DONNA SMALLEY
TERMS: NET 30 DAYS
F.O.B.: SHIPPING POINT
CUST ORD NO.: PO34165

SHIP BY: 11/07/16
VIA: COMMON CARRIER
FREIGHT: PREPAID
RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION
0001 41723 D6061-T6 5/16 OD X .058 WA
CLN# ORD QTY INVOICE QTY
48.000 FT 48.000 FT

SHIPPED QTY
48.000 FT

LENGTH
12 FT ML

PCS
4

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49354489 HT:388604 PC: 4
MLT:UNITED STATES MFG:UNITED STATES

CUSTOMER QTY:
SLB/CL:388604
Expiration Date: 0/00/00
UOM

0002 45963 E6061-T6 SQ-SC TUBE 1 SQ X .125 WA

CLN# ORD QTY INVOICE QTY
20.000 FT 21.083 FT

SHIPPED QTY
21.083 FT

21'-1" FT

PCS
1

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49357348 HT:201617624 PC: 1
MLT:UNITED STATES MFG:UNITED STATES

CUSTOMER QTY:
SLB/CL:272901
Expiration Date: 0/00/00
UOM

BROKERS KUEHNE AND NAGEL LTD

AREA	TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
YRC	CARTON	1.000	41.000	2.0000	150.0000	2
YRC	CARTON	1.000	7.000	5.5000	263.0000	3
		2.000	48.000			

BY: MG

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60618920

FROM: CRAN

PAGE 1

CUST NUMBER: 1203820 NET WGT: 3.254 REQ.DATE: 11/10/16 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 11/07/16
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO34165 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH
0001 41952 D6061-T6 3/8 OD X .058 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	48.000 FT	48.000 FT	48.000 FT	3.254	4

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49347470 HT:111040 PC: 4 CUSTOMER QTY: 48.000 UOM FT
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:402873

BROKERS KUEHNE AND NAGEL LTD

AREA		TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
B		CARTON	1.000	8.000		12.5000	

BY: ED
RT 000-

UNLOAD TYPE: NONE SPECIFIED

DAS
26
9-88

NOV 10 2016

DATE SHIPPED

DATE FILLED

THANK YOU FOR THIS ORDER

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O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80816862 FROM: CHIC PAGE 2

CUST NUMBER: 1203820	NET WGT: 13.477	REQ.DATE: 11/10/16	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKESBURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7

SALESPERSON:	DONNA SMALLEY	SHIP BY:	11/07/16
TERMS:	NET 30 DAYS	VIA:	COMMON CARRIER
F.O.B.:	SHIPPING POINT	FREIGHT:	PREPAID
CUST ORD NO.:	PO34165	RELEASE NO.:	
		RECEIVING PHONE:	
		WIDTH	LENGTH
		UNLOAD TYPE:	NONE SPECIFIED

LINE ITEM DESCRIPTION
RT 000-

DATE SHIPPED _____

DATE FILLED _____

THANK YOU FOR THIS ORDER

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PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
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<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60618920

FROM: CRAN

PAGE 2

CUST NUMBER: 1203820	NET WGT: 3.254	REQ.DATE: 11/10/16	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKESBURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7

SALESPERSON: DONNA SMALLEY	SHIP BY: 11/07/16
TERMS: NET 30 DAYS	27 ENGLEHARD DRIVE
F.O.B.: SHIPPING POINT	MONROE TWP NJ 08831
CUST ORD NO.: PO34165	
VIA: COMMON CARRIER	
FREIGHT: PREPAID	
RELEASE NO.:	
RECEIVING PHONE:	

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk Camellany Date: 11/04/16

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 80816862 FROM: CHIC PAGE 3

CUST NUMBER: 1203820 NET WGT: 13.477 REQ.DATE: 11/10/16 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA ONTARIO CANADA
CN K6A 1K7 CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 11/07/16
TERMS: NET 30 DAYS 235 TUBEWAY
F.O.B.: SHIPPING POINT CAROL STREAM IL 60188
CUST ORD NO.: PO34165
VIA: COMMON CARRIER
FREIGHT: PREPAID
RELEASE NO.:
RECEIVING PHONE:

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

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Authorized Test Report Clerk Maria D. Luluan Date: 11/07/16

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

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<http://www.twmetals.com/invoice-terms.html>

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

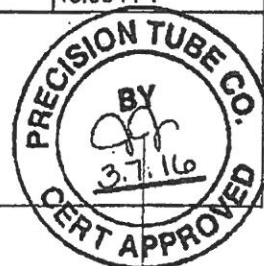
KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

TW METALS

MAY 23 16

ACCEPTED BY

CUSTOMER PO NUMBER: PTC1425		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 319936	LINE ITEM: 001	SHIP DATE: 02/26/2016	KAISER LOT NUMBER: 50751-320	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 16980.000 LB	QUANTITY: 3057.000 PCS	B/L NUMBER: 004962	DIAM/DA/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS(KSI)	YTS(KSI)	Elong in 2	HARDNESS	CONDUCT.	BEND
50751-320	0001	0002	17.5	5.1	27.4	NA N/A	N/A	N/A
50751-320	0001	0003	17.7	5.9	27.6	NA N/A	N/A	N/A
50751-320	0001	0004	18.1	6.2	25.2	NA N/A	N/A	N/A
50751-320	0001	0005	17.7	4.8	27.9	NA N/A	N/A	N/A
50751-320	0001	0006	18.1	5.6	27.0	NA N/A	N/A	N/A
50751-320	0001	0007	17.7	5.3	28.5	NA N/A	N/A	N/A
50751-320	0001	0008	18.0	5.5	29.2	NA N/A	N/A	N/A
50751-320	0001	0009	17.3	4.5	26.6	NA N/A	N/A	N/A
50751-320	0001	0010	17.0	5.9	27.9	NA N/A	N/A	N/A
50751-320	0001	0011	18.0	6.1	28.7	NA N/A	N/A	N/A
50751-320	0001	0012	17.3	5.8	27.2	NA N/A	N/A	N/A
50751-320	0001	0013	17.3	5.0	28.3	NA N/A	N/A	N/A
50751-320	0001	0014	17.7	6.3	27.2	NA N/A	N/A	N/A
50751-320	0001	0015	17.5	6.0	28.2	NA N/A	N/A	N/A
50751-320	0001	0016	16.8	5.6	25.4	NA N/A	N/A	N/A
50751-320	0001	0017	17.0	5.0	25.8	NA N/A	N/A	N/A
50751-320	0001	0001	17.0	5.9	27.9	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75645	.60	.30	.22	.05	.98	.10	.06	.02	.00	.00	.00	.01	.02
F75642	.61	.32	.22	.05	.96	.09	.06	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/B 97(R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Plant Serial: 00013627
Kaiser Order Number: 319936
Line Item: 001

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been
inspected and tested and found in conformance with applicable specifications forming a part of the
description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on
Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph

TW METALS	
TEST	MAY 23 16
ACCEPTED BY	

MB



A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 1604

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	CUST. ORD. NO.	PRECISION TUBE P/N
49354489 LINE 001	422327	24A031250580005

SOLD: TW METALS
TO 175 TUBEWAY
FOREST PARK, GA 30298
UNITED STATES

SHIP: TW METALS
TO 175 TUBEWAY
FOREST PARK, GA 30298
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
1824 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P ASTM-B-210-12 AMS-WW-T-700/6C LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3125 +.0030 -.0030 ID .3125 +.0030 -.0030 WALL .0580 +.0040 -.0040	2004 FT	08/05/16

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	45,775	40,439	17		

TEST REPORTS

DESTRUCTIVE TESTS

ACCEPTED BY

49354489
AUG 09 2016

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

TW METALS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY: 6061	HEAT:	TRACEABILITY #: 388604
		RAW MATL VENDOR: PTC2249 - Kaiser Aluminum
Min	Si 0.40 Fe 0.15 Cu 0.15 Mn 0.80	Cr 0.04 Zn 0.25 Ti 0.15 Al Rem.
Max	0.80 0.70 0.40 0.15	1.20 0.35 0.25 0.15
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL		

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundry containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By:

Art Onaitis

Art Onaitis
QA Manager

08/05/16

Page: 1 of 1

AG



A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 930

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO. 49347470 LINE 001		CUST. ORD. NO. 402873		PRECISION TUBE P/N 24A037500580006					
SOLD: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES			SHIP: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES						
QUANTITY ORD.	DESCRIPTION			QTY. SHIPPED	DATE SHIPPED				
4704 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/6C ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID WALL .0580 +.0040 -.0040			4992 FT	05/17/16				
MECHANICAL PROPERTIES									
SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)				
1	45,627	40,428	17						
DESTRUCTIVE TESTS									
FLATTENING: PASS									
Comments:									
NON-DESTRUCTIVE TESTS									
EDDY CURRENT: PASS									
CHEMICAL COMPOSITION									
ALLOY: 6061		HEAT:		TRACEABILITY #: 111040					
				RAW MATL VENDOR: PTC1425 - Kaiser Aluminum					
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary confinement. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By:
Art Onalitis
QA Manager

05/17/16
Page: 1 of 1

UMB

KAISER ALUMINUM FABRICATED PRODUCTS

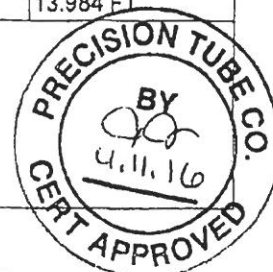
Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PTC2249		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 320031	LINE ITEM: 001	SHIP DATE: 04/01/2016	KAISER LOT NUMBER: 50751-323	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 16135.000 LB	QUANTITY: 2913.000 PCS	B/L NUMBER: 004991	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-323	0001	0002	17.3	5.9	26.7	NA N/A	N/A	N/A
50751-323	0001	0003	17.3	5.9	26.7	NA N/A	N/A	N/A
50751-323	0001	0004	17.3	5.4	27.2	NA N/A	N/A	N/A
50751-323	0001	0005	18.0	6.1	28.0	NA N/A	N/A	N/A
50751-323	0001	0006	17.4	5.7	26.4	NA N/A	N/A	N/A
50751-323	0001	0007	17.9	6.2	27.6	NA N/A	N/A	N/A
50751-323	0001	0008	17.5	5.8	26.6	NA N/A	N/A	N/A
50751-323	0001	0009	17.7	5.7	28.6	NA N/A	N/A	N/A
50751-323	0001	0010	16.9	5.6	25.2	NA N/A	N/A	N/A
50751-323	0001	0011	17.6	5.8	27.9	NA N/A	N/A	N/A
50751-323	0001	0012	17.8	6.9	27.4	NA N/A	N/A	N/A
50751-323	0001	0013	18.1	6.1	27.2	NA N/A	N/A	N/A
50751-323	0001	0014	17.4	5.7	28.3	NA N/A	N/A	N/A
50751-323	0001	0015	17.0	5.6	28.6	NA N/A	N/A	N/A
50751-323	0001	0016	18.2	5.8	26.6	NA N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75366	.58	.29	.22	.06	.98	.08	.05	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

TEST REPORTS
ACCEPTED BY

49354489
AUG 09 2016

LB
TW METALS

AG

**KAISER
ALUMINUM
FABRICATED PRODUCTS**

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been
inspected and tested and found in conformance with applicable specifications forming a part of the
description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on
Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph

**TEST REPORTS
ACCEPTED BY**

AUG 09 2016

LB
TW METALS

Plant Serial: 00013829
Kaiser Order Number: 320031
Line Item: 001

AG



Service Center Metals

5850 Quality Way

Prince George, VA 23875

CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS



OUR ORDER NUMBER	ITEM
272901	1

Can Do.

BILL TO
TW METALS-Exton, PA
SHIP TO
TW METALS-Carol Stream, IL
Quantity Certified 3,127 lbs 288 pcs
MANIFEST NUMBER 310767
CUSTOMER PO M49357348
CUSTOMER PART NUMBER 45963

DIE NUMBER HSQ0321
ALLOY / TEMPER 6061-T6
DATE OF SHIPMENT 10/13/2016
SALESPERSON Ellis Williams
DESCRIPTION SST 1.000x1.000x.125

CERTIFICATION
ASTM-B221-14 SPOT STENCILLED
SPECIFICATION
AMS-QQA-200/8 Rev-A

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.
This product is RoHS-2, REACH, and DFARS compliant.

Mechanical Properties

Tests Lot No.

16 201617624

Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
10/10/16	min 44.40 max 48.30	min 41.50 max 46.00	min 11.35 max 15.05



certified

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Each	Others	Total	Melt Source:
2M160918Y	201617624	6061	0.63	0.24	0.21	0.07	0.89	0.07	0.01	0.02	97.88	0.05	0.15		United States of America
2M160919B	201617624	6061	0.60	0.25	0.20	0.07	0.87	0.07	0.01	0.02	97.92	0.05	0.15		United States of America

SCM is ISO 9001-2008 certified

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Print Date: 10/13/2016

Rev 9/8/16

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 6061 T6 T. 375 W. 058

PO / BATCH NO.: 34165/136101

DATE: 11/11/13

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: .375

QUANTITY RECEIVED: 48'

THICKNESS RECEIVED: .375

QUANTITY INSPECTED: 48'

SHEET SIZE ORDERED: _____

QUANTITY REJECTED: _____

SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y N	<u>6061 T6</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	<u>.375</u>
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y N	<u>AMS 4082</u>
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>HEAT # 11040</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	<u>6061 T6 T. 375 W. 058</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	<u>M136101</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

INSPECTED BY: [Signature]

SIGNED OFF BY: _____

DATE: 11/11/13

DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 T.3125W.058
 DATE: 16/11/13

PO / BATCH NO.: 34165/136101

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 48'
 QUANTITY INSPECTED: 48'
 QUANTITY REJECTED: _____

THICKNESS ORDERED: .3125
 THICKNESS RECEIVED: .310
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y N	<u>M6061T6</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	<u>.310</u>
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y N	<u>ASTM-B-210-12</u>
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>HEAT # 388609</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	<u>M6061T6 T.3125W.058</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	<u>M136101</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.
 RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u> DATE: <u>16/11/13</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6TS1.00LW
 DATE: 16/11/13

PO / BATCH NO.: 34165/136101

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 21.083
 QUANTITY INSPECTED: 21.083
 QUANTITY REJECTED: _____

THICKNESS ORDERED: 1.00
 THICKNESS RECEIVED: 1.00
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> N	<u>6061T6</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> N	<u>1.00</u>
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/> N	<u>AMS-QQ-A-200/8</u>
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	<u>HEAT # 201617624</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> N	<u>M6061T6TS 1.00</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> N	<u>M136101</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u> DATE: <u>16/11/13</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34165**

Purchase Order Date 11/3/2016

PO Print Date 11/3/2016

Page Number 1 of 2

Order From :

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

E-MAILED

NOV 03 2016

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M6061T6T0.3125W.058	ALUM TUBE .3125 x .058w	11/10/2016		48.00	\$2.50	\$120.00
			Yes 11/10/2016		f		
	MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR ASTM B241						
						Line Total:	\$120.00
2	M6061T6T0.375W.058	6061-T6 RD Tube .375 x.058W	11/10/2016		48.00	\$2.15	\$103.20
			Yes 11/10/2016		f		
	MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR ASTM B241						
						Line Total:	\$103.20

DAS
26
9-89

NOV 10 2016

Note:

11/3/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34165**

Purchase Order Date 11/3/2016

PO Print Date 11/3/2016

Page Number 2 of 2

Order From :

VU-TWM001

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

QTY	DESCRIPTION	UNIT	DATE	PRICE	TAX	TOTAL
3	M6061T6TS1.000W.120	6061T6 SQ TUBE 1.00 X 1.00 X .120w	11/10/2016	20.00	\$2.00	\$40.00

Yes

f

MATERIAL: 6061-T6/T651/T6510/T6511T62 SQUARE TUBING
PER AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR
AMS-QQ-A-200/8 OR AMS 4160

NOTE: FLAT EDGE

recd 21.083

Line Total: \$40.00

QTY	DESCRIPTION	UNIT	DATE	PRICE	TAX	TOTAL
4	71401-45	procurement quality clauses	11/10/2016	1.00	\$0.00	\$0.00

No

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

11/10/2016

NOV 10 2016

DAS
26
9-89

Line Total: \$0.00

PO Total: \$263.20

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 11/3/2016